University of Agronomic Sciences and Veterinary Medicine of București
Faculty of Horticulture

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Fruit quality parameters of some pawpaw genotypes, produced in București area

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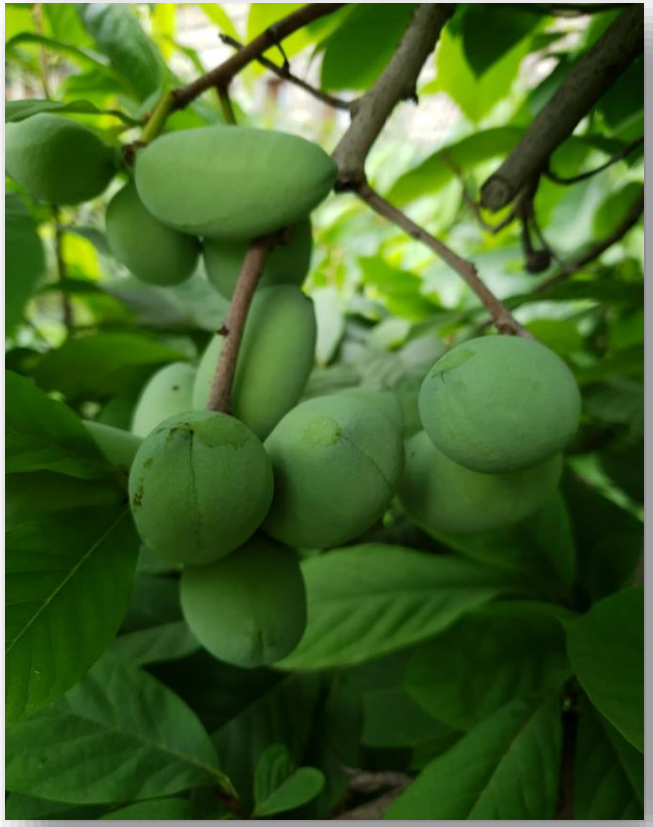
Introduction

- *Asimina triloba* is also known as American pawpaw or pawpaw
- Part of the *Annonaceae* family
- It is native to Eastern North America
- Similar in texture and taste to bananas or mangoes
- The color of the ripe fruits are light green or golden yellow



Introduction

- Fruit oblong, large edible berry, 5-16 cm long and 3-7 cm wide, weighing 20-500 g, with numerous seeds
- The flesh of pawpaw fruit provides a healthy dose of vitamin C
- A good source of iron, and magnesium
- Contains smaller amounts of vitamin A, riboflavin, niacin, calcium, phosphorus, potassium, zinc and thiamine

Objective

Fruit pomological characteristics of Asimina fruits produced in București area:

- Asimina fruits harvest schedule
- Harvest schedule/tree
- Asimina fruits production
- Asimina fruit dimensions (mm)
- Asimina fruit weight (g)
- Pulp color difference
- Fruit analyzes: soluble solid content, glucose, fructose

Materials and Methods

- Location: Experimental Field of the Faculty of Horticulture, USAMV, București
- Fruits measurement and analysis: Research Center for Studies of Food Quality and Agricultural Products, USAMV București

Materials and Methods

Analytical balance

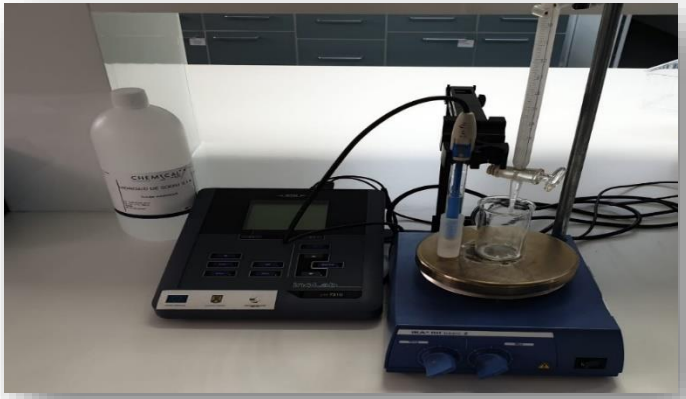
Caliper

SSC refractometer

Glucose refractometer

Fructose refractometer

Materials and Methods

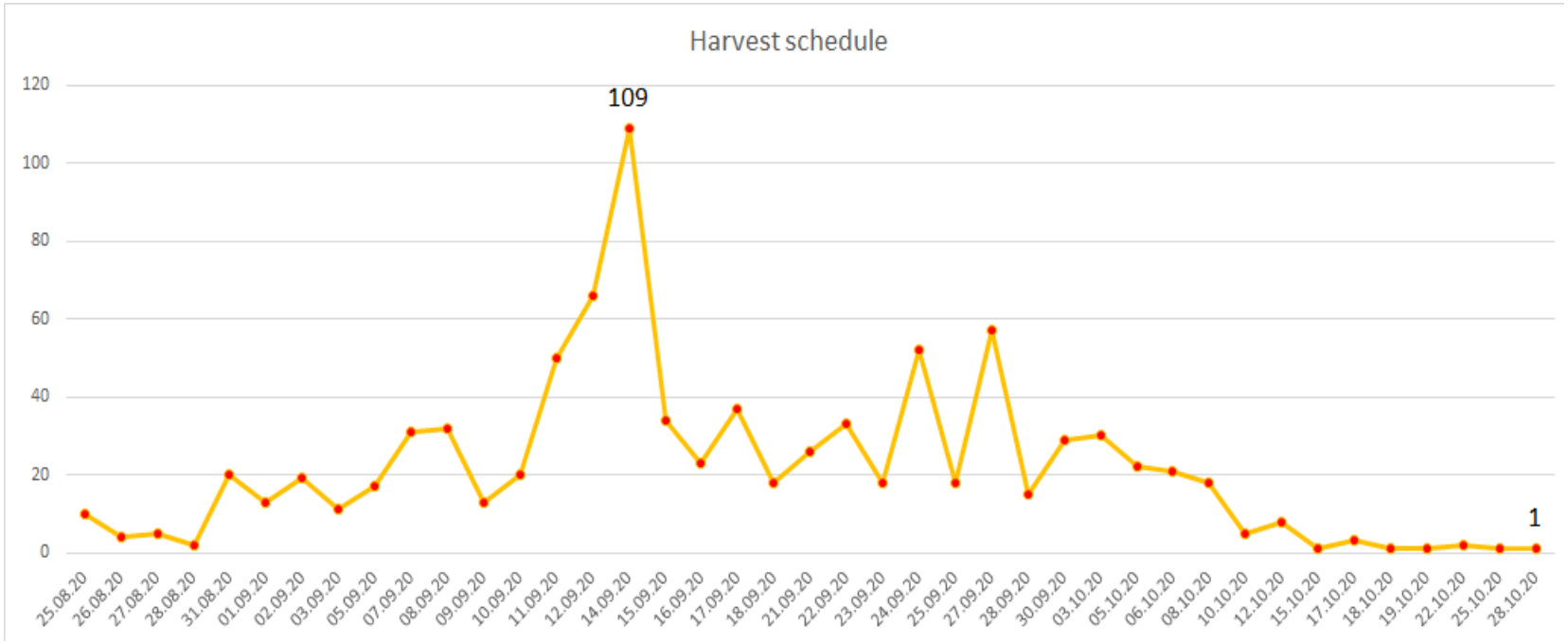


Acidity equipment

Laboratory ovens

Results and discussions

Asimina fruits harvest schedule



Results and discussions

Harvest schedule/tree

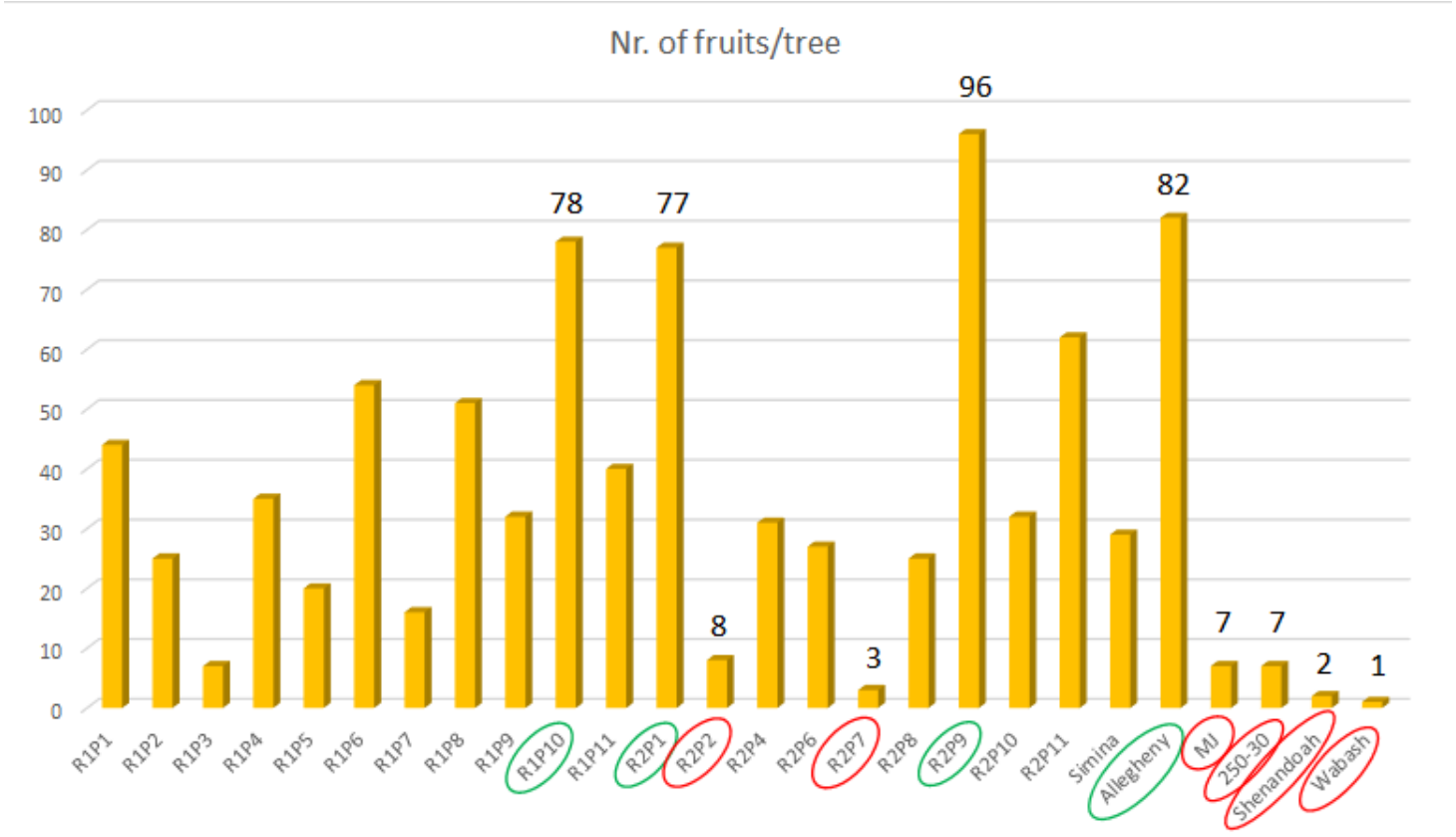
Genotypes	Beginning of harvest	End of harvest
R1P1	27.08.	15.10.
R1P2	01.09.	30.09.
R1P3	14.09.	24.09.
R1P4	25.08.	22.09.
R1P5	02.09.	06.10.
R1P6	26.08.	05.10.
R1P7	14.09.	03.10.
R1P8	01.09.	28.10.
R1P9	26.08.	30.09.
R1P10	07.09.	08.10.
R1P11	14.09.	08.10.
R2P1	25.08.	05.10.
R2P2	25.08.	11.09.
R2P4	02.09.	12.10.
R2P6	31.08.	24.09.
R2P7	05.09.	11.09.
R2P8	31.08.	10.10.
R2P9	03.09.	10.10.
R2P10	26.08.	08.10.
R2P11	12.09.	05.10.
Simina	25.08.	08.10.
Allegheny	27.08.	28.09.
MJ	11.09.	17.09.
250-30	31.08.	06.10.

Results and discussions

Asimina fruits production

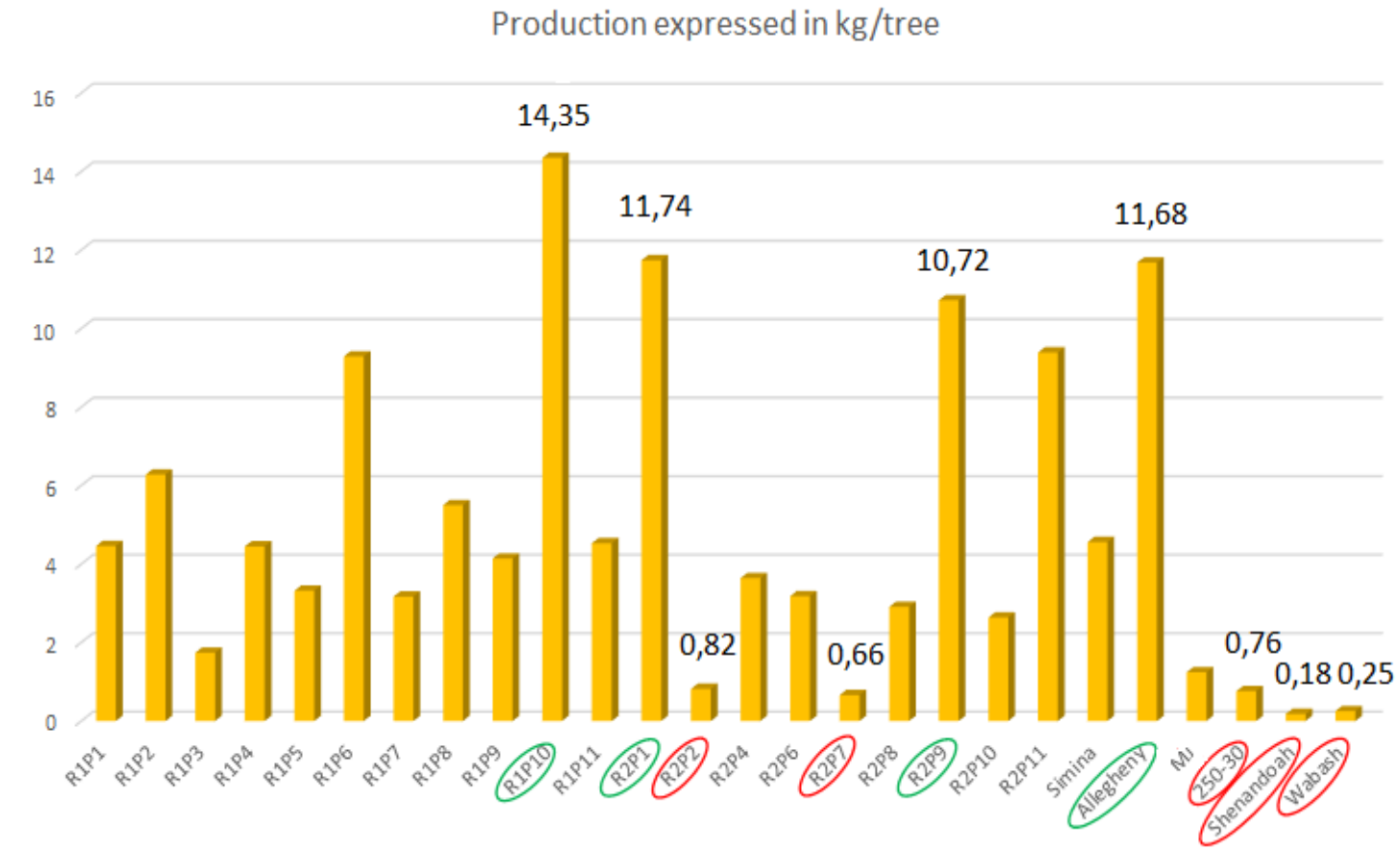
Results and discussions

Asimina fruits production (no. fruits/tree)



Results and discussions

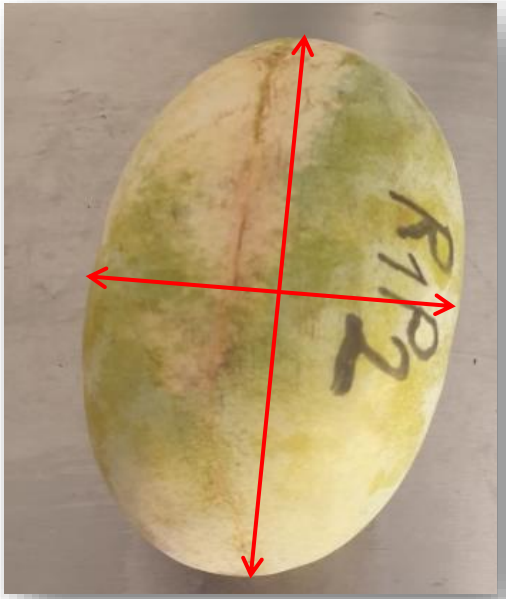
Production (kg/tree)



Results and discussions
Asimina fruit dimensions (mm)

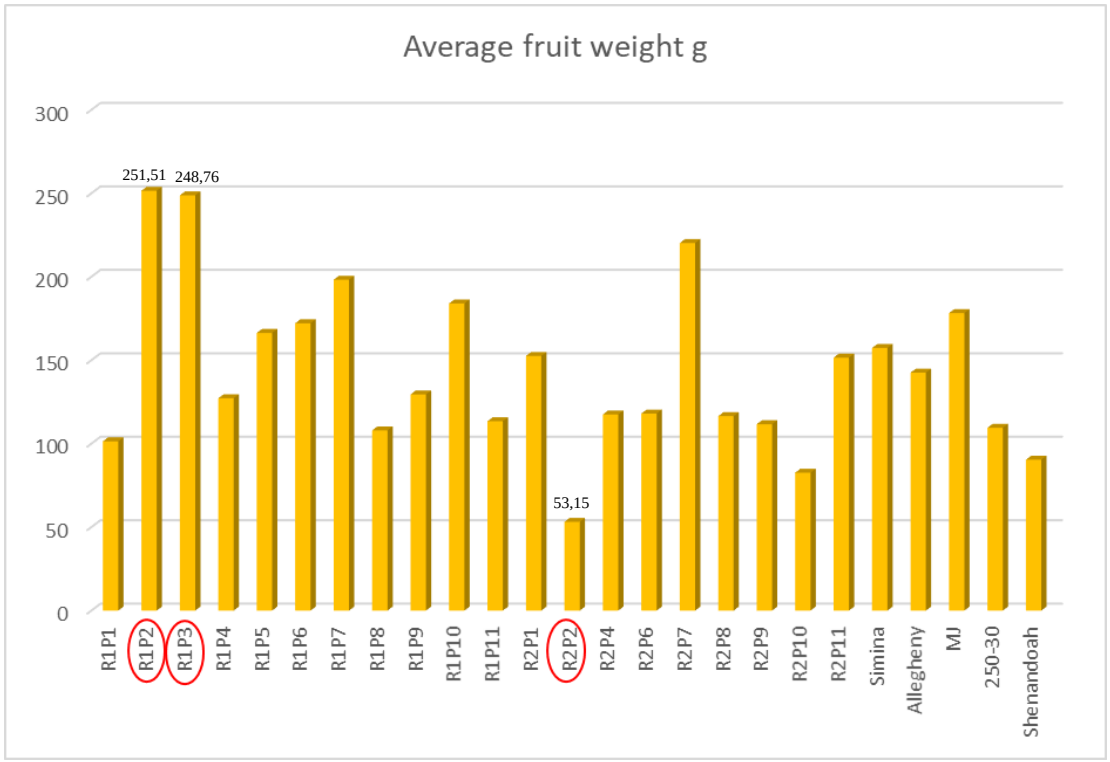
Genotype	Height (mm)	Diameter 1 (mm)	Diameter 2 (mm)	Index of shape
R1P1	75.5	46.29	48.08	1.600
R1P2	99.47	64.38	67.35	1.510
R1P3	97	65.64	73.03	1.399
R1P4	72.15	51.74	54.91	1.353
R1P5	84.86	55.67	60.46	1.461
R1P6	89.5	56.43	58.13	1.563
R1P7	94.91	58.24	61.17	1.590
R1P8	72.71	48.73	50.5	1.465
R1P9	81.36	50.74	52.07	1.583
R1P10	97.51	56.81	58.96	1.685
R1P11	76.98	51.16	53.36	1.473
R2P1	82.17	54.47	56.5	1.481
R2P2	59.91	39.07	42.44	1.470
R2P4	86	45.5	47.67	1.846
R2P6	80.95	49.22	51.81	1.602
R2P7	101.53	60.94	62.64	1.643
R2P8	76.16	49.19	50.96	1.521
R2P9	76.59	49.24	51.89	1.515
R2P10	68.08	45.72	46.78	1.472
R2P11	64.34	51.07	54.56	1.218
Simina	91.5	54.37	55.14	1.671
Allegheny	86.65	50.25	53.33	1.673
MJ	80.8	57.18	58.65	1.395
250-30	75.17	49.32	53.56	1.461
Shenandoah	66.94	44.91	48.6	1.432

All genotypes have alongate shapes.



Results and discussions

Asimina fruit weight (g)



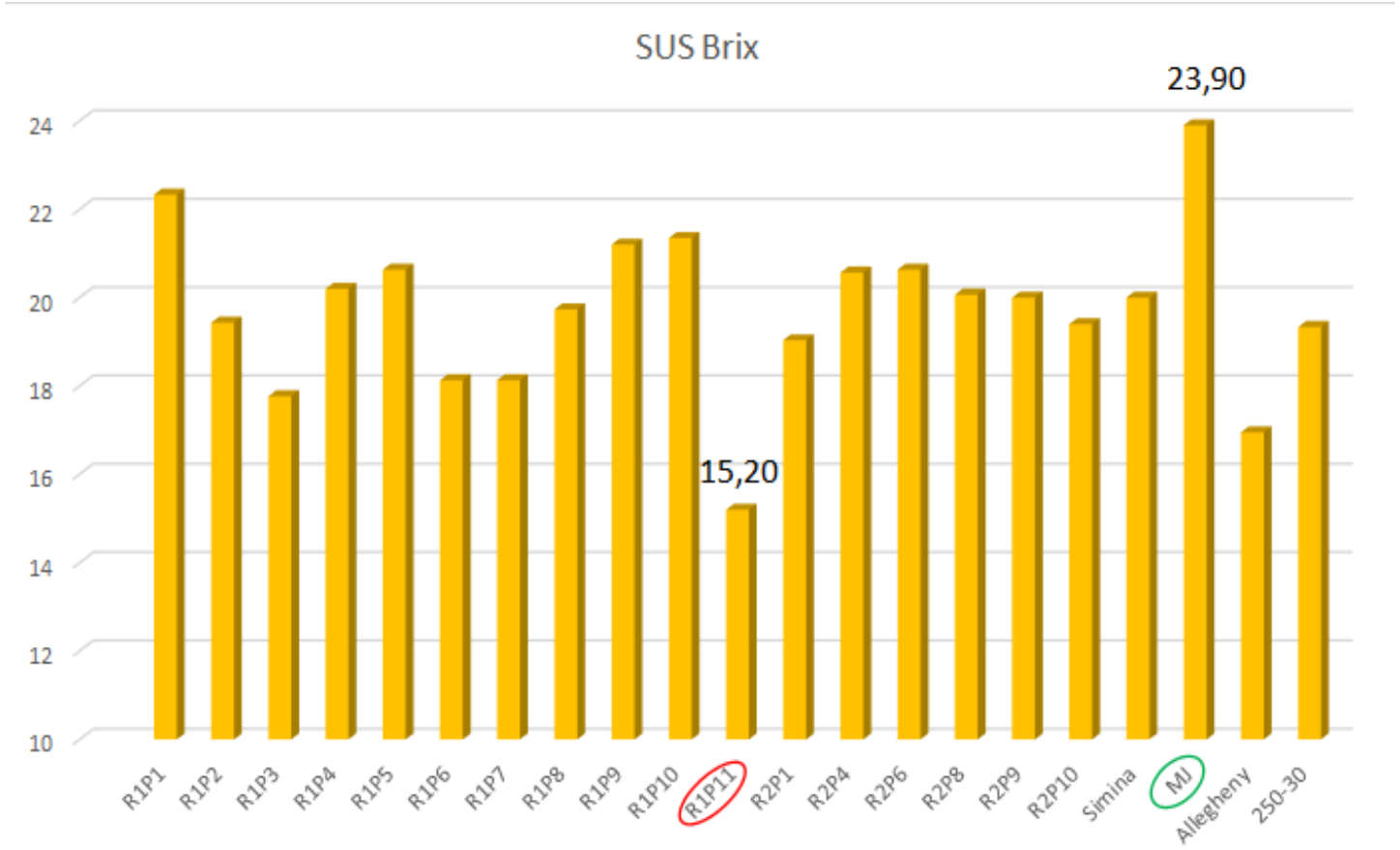
Results and discussions

Pulp color difference

Results and discussions

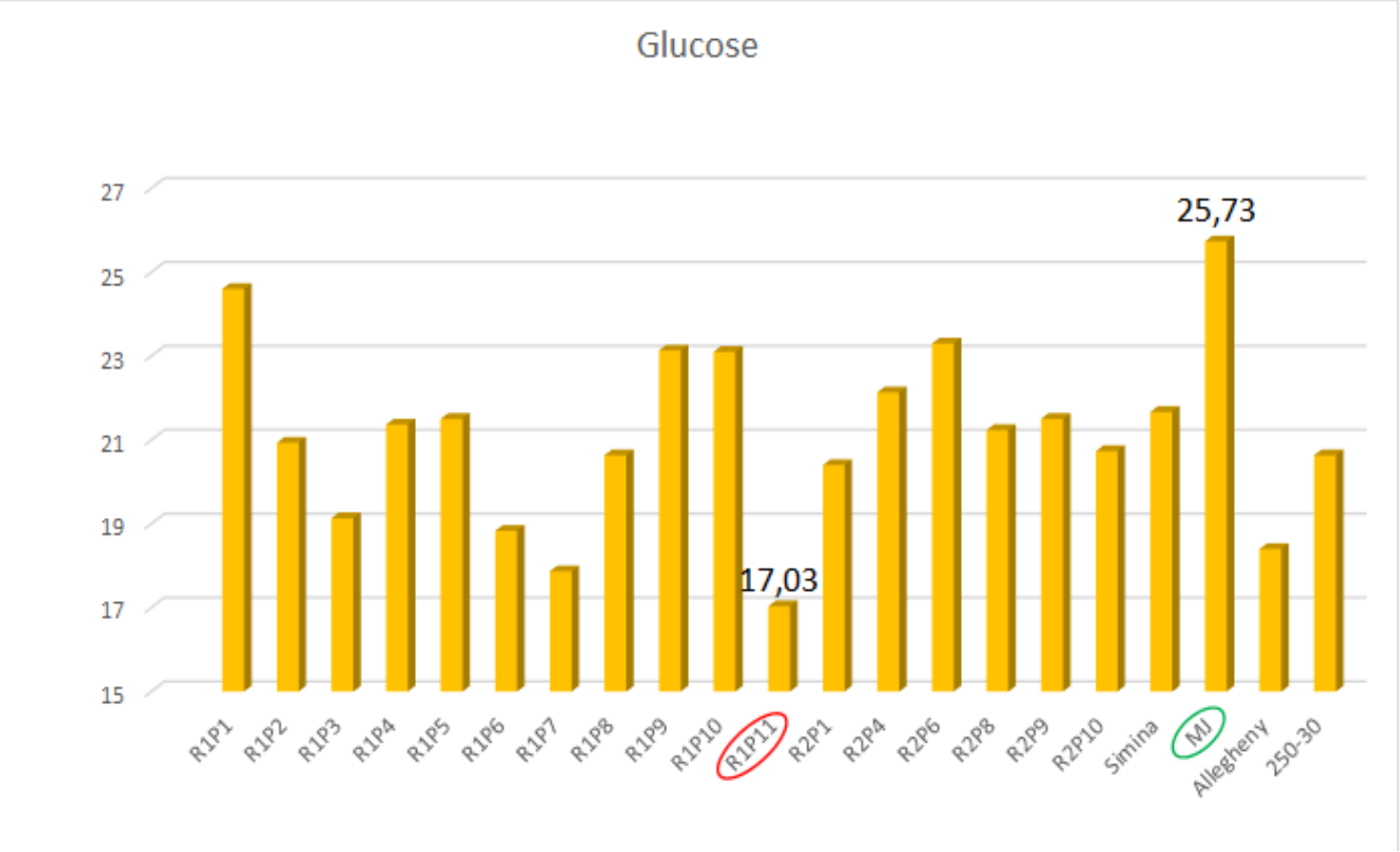
Fruit analyzes

SSC (%Brix)



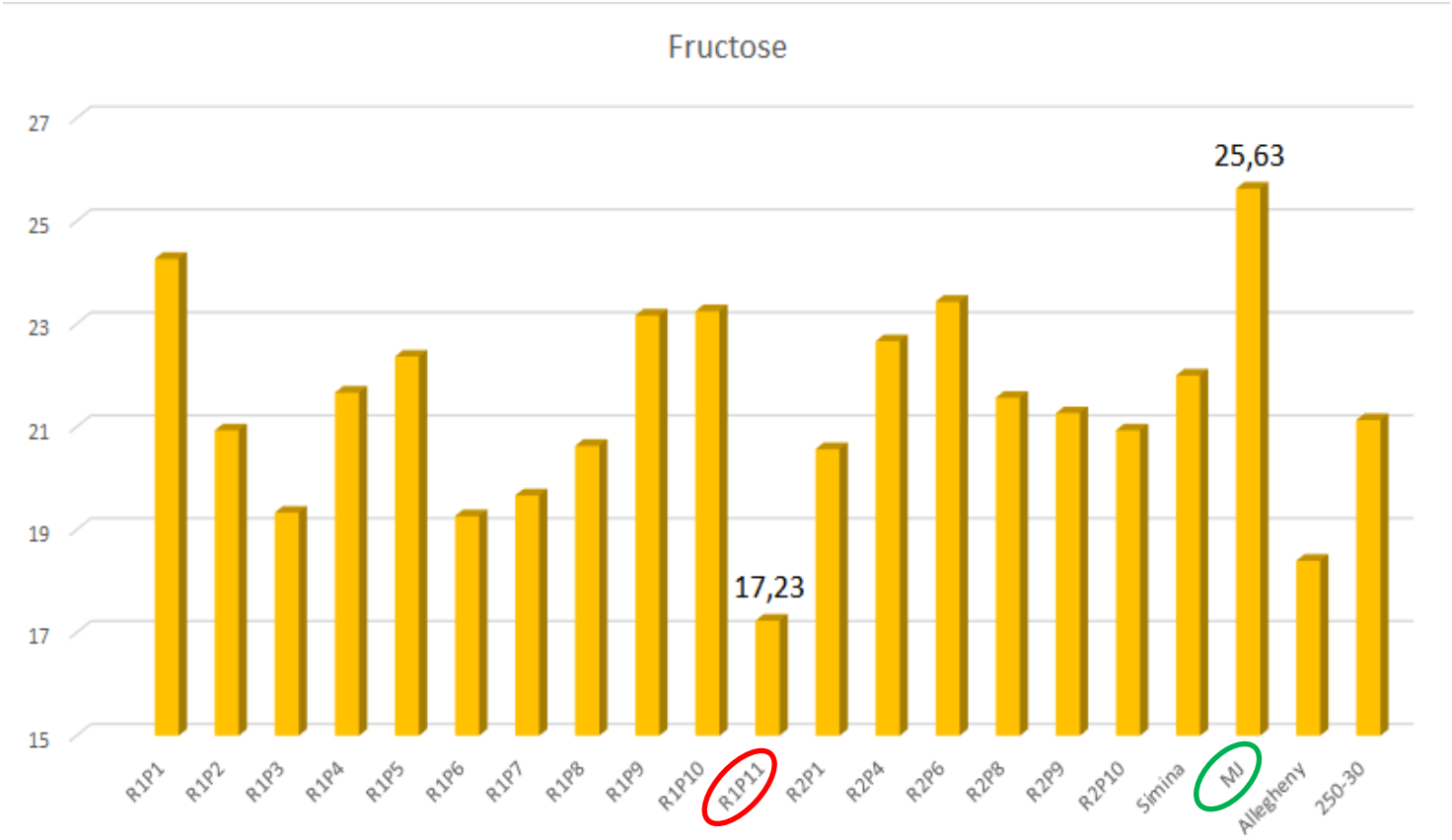
Results and discussions

Glucose



Results and discussions

Fructose



Conclusions and recommendations

After the measurements and the analyzes I recommend:

- Harvest schedule: R1P1, R1P8
- Production (no. fruits/tree): R2P9, Allegheny, R1P10, R2P1
- Production (kg/tree): R1P10, R2P1, Allegheny, R2P9
- Fruit dimensions (mm): R1P3, R1P2, R2P7
- Fruit weight (g): R1P2, R1P3
- Fruits analysis: MJ, R1P1

Thank you for
your attention!